

# Vibration Tester

In the world of mechanical maintenance, vibration remains one of the earliest indicators of a machine's health.

Now you can get fast, accurate and actionable answers with revolutionary vibration testers from Fluke. These tools redefine vibration testing for mechanical troubleshooting and predictive maintenance.



Watch our latest videos on our own YouTube Channel [www.youtube.com/user/FlukeEurope](http://www.youtube.com/user/FlukeEurope)

# 805 Vibration Meter



Fluke 805

## The reliable, repeatable, accurate way to check bearings and overall vibration.

Make go or no-go maintenance decisions with confidence. The Fluke 805 Vibration Meter is the most reliable vibration screening device available for frontline mechanical troubleshooting teams that need repeatable, severity scaled readings of overall vibration and bearing condition.

### What makes the Fluke 805 the most reliable vibration screening device available?

- Innovative sensor and sensor tip design helps minimize measurement variations caused by device angle or contact pressure
- Four-level severity scale assesses urgency of problems for overall vibration and bearing condition
- Exportable data via USB
- Trending in Excel using built-in templates

- Overall vibration measurement (10 Hz to 1,000 Hz) for acceleration, velocity and displacement units of measurement for a wide variety of machines
- Crest Factor+ feature provides reliable bearing assessment using direct sensor tip measurements between 4,000 Hz and 20,000 Hz
- Temperature measurement with Spot IR Sensor increases diagnostic capabilities
- On-board memory holds and saves up to 3,500 measurements
- Audio output for listening to bearing tones directly
- External accelerometer support for hard to reach locations
- Flashlight for viewing measurement locations in dark areas

## Specifications

Vibration meter	
Low frequency range (overall measurement)	10 Hz to 1,000 Hz
High frequency range (CF+ measurement)	4,000 Hz to 20,000 Hz
Severity levels	Good, Satisfactory, Unsatisfactory, Unacceptable
Vibration limit	50 g peak (100 g peak-peak)
A/D converter	16-bit
Signal to noise ratio	80 dB
Sampling rate	
Low frequency	20,000 Hz
High frequency	80,000 Hz
Sensor	
Sensitivity	100 mV / g ± 10%
Resolution	0.01 g
Accuracy	At 100 Hz ± 5 % of measured value
Amplitude units	
Acceleration	g, m/sec <sup>2</sup>
Velocity	in/sec, mm/sec
Displacement	mils, mm
Infrared thermometer	
Range	-20 °C to 200 °C
Accuracy	±2 °C
Environmental	
IP rating	IP54
Drop test	1 meter



Complete set 805 with suitcase, belt holster, manual on CD and quick reference guide

### Included Accessories

USB cable, Storage case, Belt holster, Quick reference guide, CD-ROM (includes MS Excel template and documentation), Two (2) AA batteries

### Ordering Information

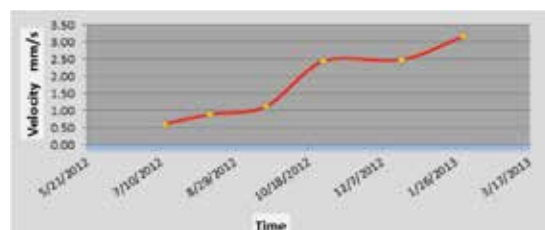
Fluke 805 Vibration Tester

**Battery type:** AA (2) Alkaline or Lithium-ion 2V dc

**Size (HxWxD):** 162 x 257 x 98 mm

**Weight:** 0.40 kg

**1 Year Warranty**



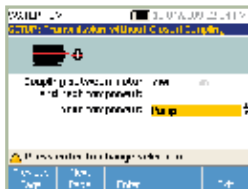
TrendPlot made with MS Excel template

# 810 Vibration Tester



Fluke 810

## Set-up



## Measure



## Diagnose



Language support:  
eng, ger, fre, ita, spa, por

## Motor diagnosis and repair in three simple steps

The Fluke 810 Vibration Tester is the most advanced troubleshooting tool for mechanical maintenance teams who need an answer now. The unique diagnostic technology helps you quickly identify and prioritize mechanical problems, putting the expertise of a vibration analyst in your hands.

### Use the vibration tester to:

- Troubleshoot problem equipment and understand the root cause of failure
- Survey equipment before and after planned maintenance and confirm the repair
- Commission new equipment and ensure proper installation
- Provide quantifiable proof of equipment condition and drive investment in repair or replacement
- Prioritize and plan repair activities and operate more efficiently
- Anticipate equipment failures before they happen and take control of spare parts inventories
- Train new or less-experienced technicians and build confidence and skill across the team

### Features and benefits

- On-board identification and location of the most common mechanical faults (bearings, misalignment, unbalance, looseness) focus maintenance efforts on root cause, reducing unplanned downtime
- Fault severity scale with four severity levels help you prioritize maintenance work
- Repair recommendations advise technicians on corrective action
- On-board context sensitive help provide real-time tips and guidance to new users
- 2 GB expandable on-board memory provide enough space for your machinery's data
- Self-test functions ensure optimal performance and more time on the job
- Laser tachometer for accurate machine running speed promotes confident diagnoses
- Tri-axial accelerometer reduces measurement time by 2/3 over single axis accelerometers
- Viewer PC Software expands data storage and tracking capacity
- Color LCD display and intuitive multilingual, icon-based user interface promote use right out of the box

## Specifications

(Check the Fluke web for detailed specifications)

### Diagnostic specifications

Standard faults	Unbalance, looseness, misalignment and bearing failures
Analysis for	Motors, fans, blowers, belts and chain drives, gearboxes, couplings, centrifugal pumps, piston pumps, sliding vane pumps, propeller pumps, screw pumps, rotary thread/gear/lobe pumps, piston compressors, centrifugal compressors, screw compressors, closed coupled machines, spindles
Machine rotational speed range	200 rpm to 12000 rpm
Diagnosis details	Plain-text diagnosis, fault severity (slight, moderate, serious, extreme), repair details, cited peaks, spectra

### Electrical specifications

Ranging	Automatic
A/D converter	4 channel, 24 bit
Usable bandwidth	2 Hz to 20 kHz
Sampling	51.2 kHz
Digital signal processing functions	Automatically configured anti-alias filter, high-pass filter, decimation, overlapping, windowing, FFT, and averaging
Sampling rate	2.5 kHz to 50 kHz
Dynamic range	128 dB
Amplitude accuracy	±0.1 dBV
FFT resolution	800 lines
Spectral windows	Hanning
Frequency units	Hz, orders, cpm
Amplitude units	in/sec, mm/sec, VdB (US), VdB (Europe)
Non-volatile memory	SD micro memory card, 2 GB internal + user accessible slot for additional storage

## Included Accessories

Tri-axial TEDS accelerometer, accelerometer magnet mount, accelerometer mounting pad kit with adhesive, accelerometer quick disconnect cable, laser tachometer and storage pouch, smart battery pack with cable and adapters, shoulder strap, adjustable hand strap, Viewer PC application software, mini-USB to USB cable, getting started guide, illustrated quick reference guide, users manual CD-ROM, instructional training CD-ROM, hard carrying case.

## Ordering Information

Fluke 810 Vibration Tester

**Battery type:** Lithium-ion, 14.8 V 2.55 Ah  
**Size (HxWxD):** 186 x 267 x 70  
**Weight:** 1.9 kg

**Warranty:** Three years on tester  
 One year on sensor and tachometer

# 820-2 LED Stroboscope

**New**



Fluke 820-2

## Rugged, easy-to-use, high intensity LED Stroboscope for stop motion diagnostics

The Fluke 820-2 LED Stroboscope is a simple, easy to use tool to stop motion for measurement and diagnostic purposes.

Investigate and observe potential mechanism failure with confidence on a variety of machinery, in a wide range of industries, without making physical contact with the machine. The Fluke 820-2 LED Stroboscope is a rugged, compact, portable strobe with high intensity LED head, ideal for stop motion diagnostics, mechanical troubleshooting, and process or product research and development.

### Key features:

- High intensity 7-LED array—4,800 Lux @ 6,000 FPM/30cm
- High efficiency LED solid-state light source with uniform flash characteristics allow for higher flash rates—30-300,000 FPM (flashes per minute)
- Digital pulse width modulation for exceptionally sharp images at high speeds
- Rugged, durable design utilizes solid-state LEDs with no filaments, gases, hollow cavities, or glass—(one meter drop)
- Quartz-accuracy control system provides high accuracy—0.02 % ( $\pm 1$  digit)
- Multi-line LCD display
- Check the rotating speed of machinery without physical contact or need for reflective tape
- Advance or retard flash timing for viewing gear teeth, cutting surfaces, repeats, or “drifting” equipment.
- Simple push button operation with 2x and  $\pm 2$  buttons for easy adjustment

### Common applications for the 820-2

The Fluke 820-2 LED Stroboscope is more than just a tool to measure rotational speed of machinery without physical contact. It is also an excellent diagnostic tool for a wide variety of applications:

- Identify belt wear of belt driven machines
- See product tags or markers
- Detect pulley wear and damage
- Inspect condition of rotor blades, bearings and couplings
- Make belt slip visible



## Specifications

Mechanical specifications	
Size (HxWxL)	5.71 x 6.09 x 19.05 [cm]
Weight	0.24 [kg]
Flash frequency	
Range	30 – 300000 FPM 0.5 – 5000 Hz
Light	
Color	Approx 6500 K
Emission output	4,800 lx @ 6000 FPM at 30[cm]

### Included Accessories

Protective case, external trigger connector

### Ordering Information

Fluke 820-2 LED Stroboscope

# 830 Laser Shaft Alignment Tool

**New**



Fluke 830

## The ideal test tool to precision-align rotating shafts in your facility

The higher the accuracy of the alignment of rotating machinery, the higher the energy savings and the longer parts like: seals, couplings and bearings wear well. The highest alignment accuracy is achieved with laser sensors instead of rulers or dial indicators. Laser sensors also allow data transfer to a computer, where alignment condition is calculated and adjustments are given.

Fluke 830 Laser Alignment Tool uses laser sensors and guides you step by step through the alignment procedure that results in a precision aligned machine and saves you costs on energy and maintenance.

### Feature and benefits

- Intuitive guided user interface, in three steps: Set up, Measure and Diagnose
- Compass Measurement Mode direct feed back when adjusting machines
- Rugged design with high IP rating an absolute need for use in harsh environments
- Wireless single laser sensor no fight with cables, quick installation and less sensitive for back lash
- Automated report out
- High accuracy getting the best out of a well aligned machine
- Unique extend mode virtually increasing laser detector size for gross misaligned machines
- Support of horizontal- and vertical mounted machinery



### Set-up



### Measure



### Diagnose



### Included Accessories

Laser sensor, laser prism, chain-type mounting bracket with 150 mm support posts (2x), 300 mm support post (4x), micro fiber cleaning cloth, sensor cable, PC cable, USB drive, USB drive cable, tape measure, wireless Bluetooth module, power adapter, instruction kit and carrying case.

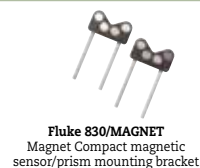
### Ordering Information

Fluke 830 Laser Shaft Alignment Tool

### Specifications

<b>Computer</b>	
Memory	64MB RAM, 64MB flash
Power Supply	Integrated Li-Ion rechargeable
Typical operating time	17 hours
Display	Type : TFT, transmissive 65.535 colors backlit LED 3.5", 320 x 240 pixel
IP rating	IP 65 (Dustproof and water spray resistant)
<b>Sensor</b>	
Laser	Type: Ga-Al-As semiconductor laser
Detector	Resolution: 1µm,
Prism	90° roof prism

### Recommended Accessories



Fluke 830/MAGNET Magnet Compact magnetic sensor/prism mounting bracket



Fluke 830/SHIMS Shim precision alignment shim kit